

CLAIMS

1. Method of adjusting at least one parameter for the compression of data representing physical quantities, the compressed data then being coded  
 5 according to a coding mode in order to protect them against transmission errors, characterised in that it includes, as from a required compressed data size ( $R_T$ ), the steps of:

- determining (E2) at least one characteristic (S) of the coding mode,
- determining (E5, E6) an effective size (R) of the compressed data  
 10 according to the required size and said at least one characteristic,
- adjusting at least one compression parameter (E7) according to the effective size.

2. Method of compressing data representing physical quantities, and  
 15 coding the compressed data in order to protect them against transmission errors, characterised in that it includes, as from a required compressed data size ( $R_T$ ), the steps of:

- determining (E2) at least one characteristic (S) of the coding mode,
- determining (E5, E6) an effective size (R) of the compressed data  
 20 according to the required size and said at least one characteristic,
- adjusting (E7) at least one compression parameter according to the effective size,
- compressing (E7) the data,
- coding (E9) the compressed data.

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3. Method according to Claim 1 or 2, characterised in that the required size is determined automatically.

30 4. Method according to any one of Claims 1 to 3, characterised in that the required size is determined according to constraints related to the subsequent decoding and decompression of the data.

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5. Method according to any one of Claims 1 to 4, characterised in that the coding mode processes the data by groups of predetermined length, and said at least one characteristic (S) of the coding mode is the predetermined length.

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6. Method according to any one of Claims 1 to 5, characterised in that the coding mode is a turbocoding and the characteristic (S) is an interleaving length of the turbocoding.

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7. Method according to any one of Claims 1 to 5, characterised in that the coding mode is a convolutional coding.

8. Method according to any one of Claims 1 to 7, characterised in that the adjustment of at least one compression parameter is a control of the throughput (E7) of the compressed data in order to obtain the effective size.

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9. Method according to any one of Claims 1 to 8, characterised in that the compression parameter is the effective size.

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10. Method according to any one of Claims 1 to 8, characterised in that the compression parameter is the resolution of the data after their decompression.

11. Method according to any one of Claims 1 to 7, characterised in that the compression parameter is a quantisation step.

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12. Method according to Claim 6, characterised in that the effective size (R) is an integer multiple of the interleaving length (S).

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13. Method according to any one of Claims 1 to 12, characterised in that the effective size (R) is determined by rounding the required size ( $R_T$ ).

14. Device for adjusting at least one parameter for compressing data representing physical quantities, the compressed data then being coded according to a coding mode in order to protect them against transmission errors, characterised in that it has:

- 5                   - means (40, 41) of determining at least one characteristic (S) of the coding mode,
- means (40) of determining an effective size (R) of the compressed data according to a required compressed data size ( $R_T$ ) and said at least one characteristic,
- 10               - means (26) of adjusting at least one compression parameter according to the effective size.

15. Device for compressing data representing physical quantities, and coding the compressed data in order to protect them against transmission errors, characterised in that it has:

- 15               - means (40, 41) of determining at least one characteristic (S) of the coding mode,
- means (40) of determining an effective size (R) of the compressed data according to a required compressed data size ( $R_T$ ) and said at least one
- 20               characteristic,
- means (26) of adjusting at least one compression parameter according to the effective size,
- means (2) of compressing the data,
- means (3) of coding the compressed data.

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16. Device according to Claim 14 to 15, characterised in that it is adapted to determine the required size automatically.

17. Device according to any one of Claims 14 to 16, characterised in  
30 that it is adapted to determine the required size according to constraints related to the subsequent decoding and decompression of the data.

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18. Device according to any one of Claims 14 to 17, characterised in that the coding means process the data by groups of predetermined length, and said at least one characteristic (S) of the coding mode is the predetermined length.

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19. Device according to any one of Claims 14 to 18, characterised in that the coding means use a turbocoding whose characteristic (S) is an interleaving length of the turbocoding.

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20. Device according to any one of Claims 14 to 18, characterised in that the coding means use a convolutional coding.

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21. Device according to any one of Claims 14 to 20, characterised in that the means (26) of adjusting at least one compression parameter use a control of the throughput of the compressed data in order to obtain the effective size.

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22. Device according to any one of Claims 14 to 21, characterised in that it is adapted to consider a compression parameter which is the effective size.

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23. Device according to any one of Claims 14 to 21, characterised in that it is adapted to consider a compression parameter which is the resolution of the data after their decompression.

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24. Device according to any one of Claims 14 to 21, characterised in that it is adapted to consider a compression parameter which is a quantisation step.

25. Device according to Claim 19, characterised in that it is adapted to consider an effective size (R) which is an integer multiple of the interleaving length (S).

26. Device according to any one of Claims 14 to 25, characterised in that it is adapted to consider an effective size (R) which is determined by rounding the required size ( $R_T$ ).

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27. Adjustment device according to Claim 14, characterised in that the determination and adjustment means are incorporated in:

- a microprocessor (100),
- a read only memory (102) containing a program for processing the
- 10 data, and
- a random access memory (103) containing registers adapted to record variables modified during the running of said program.

28. Data compression and coding device according to Claim 15, characterised in that the determination, adjustment, compression and coding means are incorporated in:

- a microprocessor (100),
- a read only memory (102) containing a program for processing the
- data, and
- 20 - a random access memory (103) containing registers adapted to record variables modified during the running of said program.

29. System including a device according to any one of Claims 14 to 28, and a second corresponding data decoding and decompression device, characterised in that the required size is determined according to constraints related to the decoding and decompression of the data.

30. Apparatus (10) for processing a digital image, characterised in that it has means adapted to implement the method according to any one of

30 Claims 1 to 13.

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31. Apparatus (10) for processing a digital image, characterised in that it includes the device according to any one of Claims 14 to 29.

32. Storage medium storing a program for implementing the  
5 method according to any one of claims 1 to 13.

33. Storage medium according to claim 32, characterised in that said storage medium is detachably mountable on a device according to any one of claims 14 to 28.

34. Storage medium according to claim 32 or 33, characterised in that said storage medium is a floppy disk or a CD-ROM.

[illegible]

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